

Study of Asian Strongyliini (Coleoptera, Tenebrionidae)

XIV. New *Strongylium* Species from Laos (Part 1)

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Abstract This is the fourteenth part of the study concerning the Asian Strongyliini and deals with ten new species of the genus *Strongylium* from Laos, described under the following names: *Strongylium ohbayashii* sp. nov., *S. claudianum* sp. nov., *S. sayabourienne* sp. nov., *S. paksense* sp. nov., *S. rondonianum* sp. nov., *S. prateetlao* sp. nov., *S. champassakense* sp. nov., *S. yoshitomii* sp. nov., *S. houaphanense* sp. nov. and *S. masatakiellum* sp. nov.

This paper is the fourteen part of my study of the Asian Strongyliini, and deals with Laotian species of the genus *Strongylium*. I am going to describe ten new species in the first part.

Besides the specimens of my collection, materials were supplied by Dr. Claude GIRARD, Muséum National d'Histoire Naturelle, Paris, Dr. Ottó MERKL, the Hungarian Natural History Museum, Budapest, Dr. Kiyoshi ANDO, Hepei University, and Dr. Masataka SATÔ, Nagoya City.

Appreciation is due to the above persons who offered me the materials, and also to Mr. Seiji MORITA, Tokyo, for taking photographs. Finally, my deepest thanks should be expressed to Emeritus curator, Dr. Shun-Ichi UÉNO, National Science Museum (Nat. Hist.), Tokyo, for his constant guidance in my taxonomic studies.

Depositories of the holotypes to be designated are given under each description. The abbreviations used herein are as follows: FAEU – Faculty of Agriculture, Ehime University, Matsuyama; NSMT – National Science Museum (Nat. Hist.), Tokyo; MNHNP – Muséum National d'Histoire Naturelle, Paris; HNHMB – Hungarian Natural History Museum, Budapest.

Strongylium ohbayashii sp. nov.

(Figs. 1, 11–12)

Brownish black, dorsal surface with dark bronzy or dark coppery tinge and metallicly shining, ventral surface somewhat alutaceous; dorsal surface and fore body beneath almost glabrous, metasternum and abdomen covered with fine bent hairs. Body

elongate, longitudinally convex, gently undulate in interior parts of elytra.

Head subdecagonal, covered with isodiametric microsculpture; clypeus widely semicircular, gently flattened in basal part, strongly bent ventrad in middle, truncate at apex, closely punctate, each puncture with a minute bent hair, fronto-clypeal border widely U-shaped and finely impressed; genae before eyes rather oblique, strongly raised laterally, closely punctate, with outer margins roundly ridged, genae behind eyes obliquely impressed along borders of vertex; frons somewhat T-shaped, steeply inclined anteriorly, interocular space very narrow and weakly raised; vertex gently convex, closely, irregularly punctate, with a longitudinal impression medially. Eyes very large, subreniform in dorsal view, convex laterad, widely, obliquely inlaid into head. Antennae subfiliform, extending beyond basal 1/3 of elytra, ratio of the length of each segment from base to apex: 0.81, 0.25, 1.59, 1.57, 1.29, 1.13, 1.15, 1.12, 0.76, 0.71, 0.68.

Pronotum somewhat barrel-shaped in dorsal view, slightly wider than long (5 : 4), widest at the middle; apex sublinear, rimmed, the rim sparsely punctate, becoming finer laterad; base weakly bisinuous, more boldly bordered and rimmed than apex, feebly emarginate in the part opposite to scutellum; sides steeply inclined, weakly rounded laterad, finely bordered from prosternum, though the borders are not visible from above; front angles rectangular with rounded corners, hind angles subrectangular with protrudent corners in dorsal view; disc rather strongly convex, impressed close to base on each side and also vaguely impressed a little behind the middle, longitudinally depressed along the medial line, covered with isodiametric microsculpture, rather closely and coarsely punctate, the punctures often fused with one another, each with a minute bent hair. Scutellum sublinguiform, feebly convex, covered with isodiametric microsculpture, scattered with microscopic punctures which are often aciculate.

Elytra elongated subfusiform, 2.4 times as long as wide, 4.5 times the length and 1.5 times the width of pronotum; dorsum longitudinally convex, somewhat quadri-undulate (one depression in the central part behind scutellum, two deep depressions at basal 1/4 and the middle, each divided into two parts by the sutural ridge, and a shallow depression at apical 1/4); disc punctato-striate, the punctures in the striae somewhat transversely impressed, medium-sized in anterior part, small in posterior part; intervals rather strongly raised, covered with isodiametric microsculpture, scattered with microscopic punctures, weakly aciculate, deeply impressed along base between 1st to 5th striae; humeri gently swollen, scattered with microscopic punctures; apices slightly produced.

Fifth abdominal (anal) segment in male semicircularly depressed, sparsely pubescent. Legs slender; male protibia gently curved, with ventral face weakly gouged; male metatibia very weakly twisted, with interior face gouged and flattened; ratios of the lengths of pro-, meso- and metatarsomeres: 0.36, 0.26, 0.25, 0.23, 1.20; 2.55, 0.91, 0.78, 0.58, 1.54; 2.62, 0.96, 0.63, 1.53.

Male genitalia slender, 4.4 mm in length, 0.7 mm in width, tapering apicad, gently curved in lateral view, with basal piece 2.3 mm in length, longitudinally ridged near apical border; lateral lobes 2.3 mm in length, fused in basal 4/5, with acute apices.

Body length: 20.5–22.5 mm.

Holotype: ♂, Fall of Saleui, Xam Neua, ca. 1,400 m alt., Houa Phan Prov., Laos, 5–V–2002, N. OHBAYASHI leg., K. ANDO collection (FAEU). Paratypes: 1 ex., Ban Van Eua, Vientiane, Laos, 30–IV–1967, J. RONDON leg. (MNHNP).

Notes. The new species resembles *Strongylium coeruleipes* PIC, 1940, originally described from Tonkin, but can be distinguished from the latter by the smaller body with the pronotum impressed along the medial line.

***Strongylium claudianum* sp. nov.**

(Fig. 2)

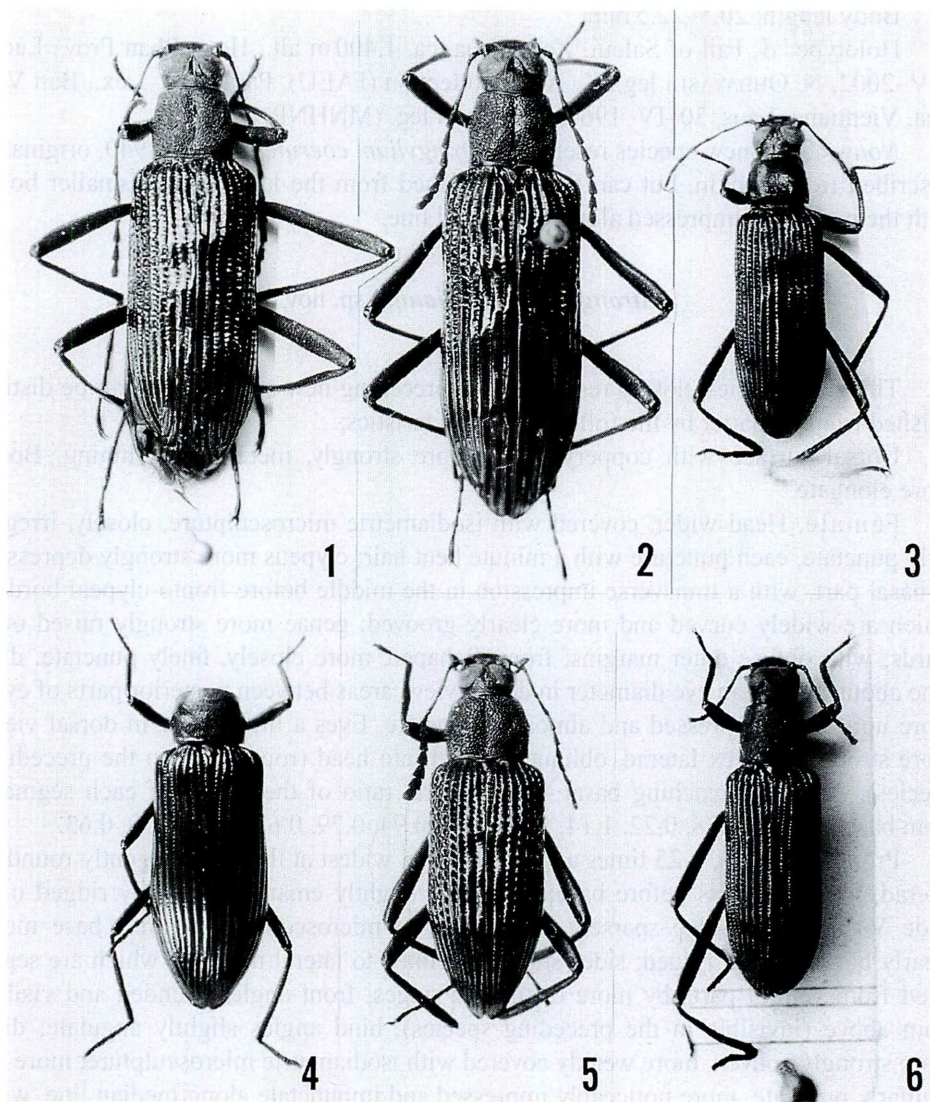
This new species closely resembles the preceding new species, but can be distinguished from the latter by the following characteristics.

Dorsal surface with coppery tinge, more strongly, metallicly shining. Body more elongate.

Female. Head wider, covered with isodiametric microsculpture, closely, irregularly punctate, each puncture with a minute bent hair; clypeus more strongly depressed in basal part, with a transverse impression in the middle before fronto-clypeal border, which are widely curved and more clearly grooved; genae more strongly raised outwards, with obtuse outer margins; frons T-shaped, more closely, finely punctate, diameter about 1/13 of an eye diameter in dorsal view, areas between posterior parts of eyes more noticeably impressed and almost impunctate. Eyes a little larger in dorsal view, more strongly convex laterad, obliquely inlaid into head (roundly so in the preceding species). Antennae reaching basal 1/8 of elytra, ratio of the length of each segment from base to apex: 0.78, 0.22, 1.14, 1.12, 0.96, 0.94, 0.79, 0.67, 0.63, 0.59, 0.63.

Pronotum wider, 1.25 times as wide as long, widest at the middle, gently rounded laterad, feebly sinuous before base; apex very slightly emarginate, finely ridged in a wide V-shape, the ridge sparsely scattered with microscopic punctures; base more clearly bordered and ridged; sides steeply declined to lateral margins, which are separated from ventral parts by more distinctive ridges; front angles rounded and visible from above (invisible in the preceding species), hind angles slightly angulate; disc more strongly convex, more weakly covered with isodiametric microsculpture, more irregularly punctate, more noticeably impressed and impunctate along median line, with a pair of large impressions slightly behind the middle. Scutellum sublinguiform and more elongate, a little more elevated, finely punctate and aciculate in posterior part.

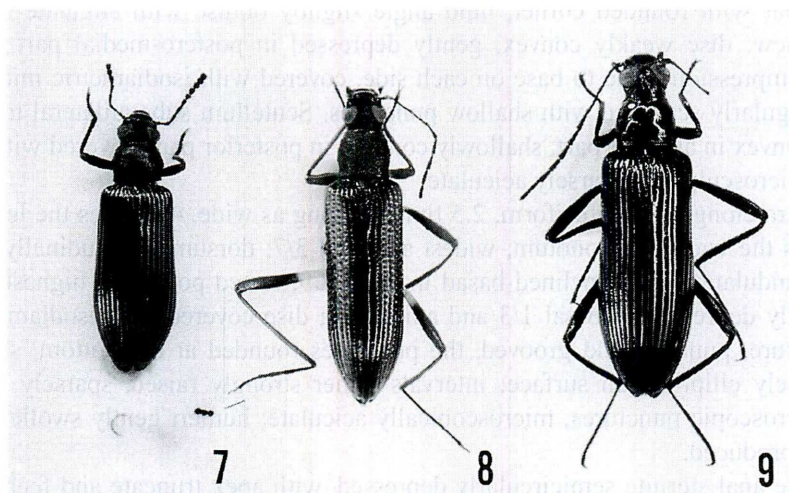
Elytra 2.28 times as long as wide, 4.48 times the length and 2.06 times the width of pronotum, widest at apical 2/5, feebly sinuous in basal 1/4; dorsum rather strongly convex, more strongly 5-undulate, highest at apical 2/5 (4-undulate and highest at the middle in the preceding species); disc more strongly punctate-grooved, 5th and 6th striae connected with each other and deepened close to base (not so in the preceding species); intervals more strongly convex, more weakly covered with isodiametric microsculpture, scattered with smaller punctures, less noticeably aciculate, areas between



Figs. 1–6. Habitus of *Strongylium* spp. from Laos. — 1, *S. ohbayashii* sp. nov., holotype, ♂; 2, *S. claudianum* sp. nov., holotype, ♀; 3, *S. sayabourienne* sp. nov., holotype, ♂; 4, *S. paksense* sp. nov., holotype, ♂; 5, *S. rondonianum* sp. nov., holotype, ♂; 6, *S. prateetlao* sp. nov., holotype, ♀.

scutellar striae noticeably flattened (not so in the preceding species); 1st and 3rd intervals ridged and connected with base; humeri more noticeably swollen; apices a little more noticeably, roundly produced.

Legs slender; ratios of the lengths of pro-, meso- and metatarsomeres: 0.29, 0.19, 0.22, 0.24, 1.24; 2.26, 1.06, 0.81, 0.68, 1.64; 2.42, 0.99, 0.66, 1.67.



Figs. 7-9. Habitus of *Strongylium* spp. from Laos. — 7, *S. champassakense* sp. nov., holotype, ♂; 8, *S. yoshitomii* sp. nov., holotype, ♀; 9, *S. houaphanense* sp. nov., holotype, ♂.

Body length: ca. 23 mm.

Holotype: ♀, Paksé, Sud Laos, 15-V-1967, J. RONDON leg. (MNHNP).

***Strongylium sayabouriense* sp. nov.**

(Figs. 3, 13-14)

Dark chestnut brown, head, scutellum, lateral parts of elytra and ventral side with dark greenish tinge, head and scutellum with feeble metallic reflection, pronotum weakly, sericeously shining, elytra dully shining, ventral surface somewhat alutaceous; each surface almost glabrous. Body elongated subfusiform, longitudinally convex, gently flattened in head and pronotum, weakly undulate in medial parts of elytra.

Head subdecagonal, rather steeply inclined forwards, covered with isodiametric microsculpture; clypeus transverse, semicircularly projected and inclined anteriad, truncate at the apex, finely punctate, fronto-clypeal border widely curved and finely sulcate; genae obliquely, strongly raised outwards, scattered with punctures, with outer margins roundly protrudent; frons somewhat boldly T-shaped, sparsely punctate, rather noticeably grooved along the median line, diameter 0.4 times the width of transverse diameter of an eye. Eyes subcordate, moderately convex laterad, obliquely inlaid into head. Antennae gently thickened apicad, ratio of the length of each segment from the basal to the 8th: 0.26, 0.10, 0.61, 0.56, 0.44, 0.41, 0.39, 0.36, —, —, —.

Pronotum trapezoidal in dorsal view, 1.25 times as wide as long; apex sublinear, finely bordered and rimmed, the rim sparsely scattered with minute punctures and tapering laterad; base bordered and rimmed, the rim bolder than the apical one; sides steeply inclined laterad, not bordered from ventral side by fine rims; front angle sub-

rectangular with rounded corner, hind angle slightly obtuse with angulate corner in dorsal view; disc weakly convex, gently depressed in postero-medial part, with an oblique impression close to base on each side, covered with isodiametric microsculpture, irregularly scattered with shallow punctures. Scutellum subequilateral triangular, feebly convex in anterior part, shallowly concave in posterior part, covered with isodiametric microsculpture, sparsely aciculate.

Elytra elongated subfusiform, 2.5 times as long as wide, 4.4 times the length and 1.4 times the width of pronotum, widest at apical 3/7; dorsum longitudinally convex, weakly undulate: feebly inclined basad in basal 2/9, raised posteriad, highest at basal 2/9, gently depressed in basal 1/3 and apical 4/9; disc covered with isodiametric microsculpture, punctate and grooved, the punctures rounded at the bottom, somewhat transversely elliptical on surface; intervals rather strongly raised, sparsely scattered with microscopic punctures, microscopically aciculate; humeri gently swollen; apices roundly produced.

Male anal sternite semicircularly depressed, with apex truncate and feebly emarginate. Legs slender; ratios of the lengths of pro-, meso- and metatarsomeres: 0.15, 0.12, 0.13, 0.10, 0.54; 0.92, 0.37, 0.32, 0.26, 0.67; 1.08, 0.37, 0.28, 0.62.

Male genitalia subfusiform, 2.6 mm in length, 0.29 mm in width, gently bent in lateral view; fused lateral lobes elongated triangular, 1.04 mm in length, with apices truncate and feebly dihiscent.

Body length: 8.5 mm.

Holotype: ♂, Sayabouri, Laos, 19–VI–1965, J. RONDON leg. (MNHNP).

Notes. This new species resembles *Strongylium pai* MASUMOTO, 1998, originally described from North Thailand, but can be distinguished from the latter by the smaller body with the diatone wider (1/5 the width of an eye diameter in the female of *S. pai*). It is worth noting that the male genitalia are feebly dehiscent at the apices.

Strongylium paksense sp. nov.

(Figs. 4, 15–16)

Dark castaneous, head, pronotum and legs darker in colour, head, pronotum and scutellum sericeously shining, elytra moderately, somewhat vitreously shining, ventral sides alutaceous; each surface almost glabrous. Body oblong-ovate, convex longitudinally.

As the head is lost in the holotype (male), the head was described on a female paratype:—Head subdecagonal, covered with isodiametric microsculpture, closely punctate, particularly so on neck; clypeus semicircular, depressed in basal part, gently bent ventrad anteriorly, more strongly bent in lateral parts, truncate in front, fronto-clypeal border widely curved and finely sulcate; genae obliquely raised, depressed and almost impunctate in areas before eyes, with rounded lateral margins; frons widely T-shaped, gently inclined anteriad in the area between eyes, abruptly so close to fronto-clypeal border, with a rather large shallow impression in interocular space, which is 0.8

times the width of transverse diameter of an eye in dorsal view; vertex weakly depressed in anterior part. Eyes medium-sized, subreniform in dorsal view, rather strongly convex laterad, gently convex above, roundly, somewhat obliquely inlaid into head. Antennae reaching base of elytra, feebly thickened apicad, five apical segments rather transverse, ratio of the length of each segment from base to apex: 0.28, 0.12, 0.53, 0.36, 0.34, 0.26, 0.20, 0.21, 0.19, 0.18, 0.23.

Pronotum (male) transversely subhexagonal, 1.43 times as wide as long, widest at the middle; apex sublinear, weakly rimmed, the rim being sparsely, minutely punctate and tapering laterad; base weakly bordered and ridged, the ridge feebly bisinuous, tapering laterad; sides rather steeply declined to lateral margins, which are finely ridged, dentate at the middle, and visible from above; front angle obtuse with rounded corner, hind angle obtusely angulate; disc gently convex, covered with isodiametric microsculpture, rather closely, irregularly punctate, impressed at the middle and close to base on each side. Scutellum subequilateral triangular with feebly rounded sides, gently elevated, covered with isodiametric microsculpture, sparsely scattered with minute, aciculate punctures.

Elytra (male) elongated subfusiform, about 2.1 times as long as wide, 4.4 times the length and 1.5 times the width of pronotum, widest at apical 3/7; dorsum rather strongly convex, very weakly depressed in basal 1/5, highest at the middle; disc punctato-striate, the punctures in striae small and closely set; intervals strongly convex, covered with isodiametric microsculpture, scattered with microscopic punctures, with 1st, 3rd, 5th and 7th intervals reaching base; humeri rather noticeably convex, covered with isodiametric microsculpture, scattered with minute punctures, sparsely aciculate; apices roundly produced.

Male anal sternite weakly, elliptically depressed, slightly truncate at apex. Legs medium-sized; male protibia with ventral face weakly gouged and haired in apical 2/5; male metatibia weakly curved interiad in middle, with apical 1/3 of ventral face slightly gouged and haired; male metatibia haired in apical half, with ventral face in basal 2/5 weakly gouged; ratios of the lengths of pro-, meso- and metatarsomeres: 0.20, 0.13, 0.14, 0.13, 0.44; 0.82, 0.46, 0.38, 0.24, 0.58; 1.23, 0.34, 0.21, 0.52.

Male genitalia elongated subfusiform, 1.7 mm in length and 0.3 mm in width, with basal piece gently curved near base in lateral view, weakly ridged in anterior part along medial line; fused lateral lobes elongated triangular, 0.7 mm in length, feebly concave in anterior part along medial line, with acute apices.

Body length: 10–11 mm.

Holotype: ♂, Paksé, Sud Laos, 15–V–1967, J. RONDON leg. (MNHNP). Paratypes: 1 ex., same data as for the holotype; 1 ex., Paksé, Sud Laos, 30–IV–1967, J. RONDON leg.

Notes. In general features, this new species rather resembles *Strongylium siidum* MASUMOTO, 1998, from North Thailand, but can easily be distinguished from the latter by the body larger (7.5 mm in *S. siidum*) and more elongate, with the pronotum narrower, the male protibia weakly gouged and haired in apical 2/5 of the ventral face, the

male metatibia weakly curved interiad in middle and slightly gouged and haired in apical 1/3 of the ventral face, the male metatibia haired in apical half and weakly gouged in basal 2/5 of the ventral face, and the male genitalia bolder.

Strongylium rondonianum sp. nov.

(Figs. 5, 17–18)

This new species closely resembles *Strongylium azuripes* ARDOIN, 1967, from Laos in general features, but can be distinguished from the latter by the following characteristics.

Body more robust, elytra without bluish metallic luster. Head less coarsely punctate; clypeus wider, fronto-clypeal border more clearly sulcate in a wide U-shape; genae more strongly raised, with outer margins obtusely angular; frons somewhat T-shaped, diatone about 1/6 times the width of transverse diameter of an eye (as in *S. azuripes*), less strongly impressed at the middle in posterior part. Eyes a little smaller, subreniform, more noticeably rounded laterad, more strongly inlaid into head posteriorly. Antennae subclavate (subfiliform in *S. azuripes*), reaching basal 1/4 of elytra, seven apical segments obviously flattened and dilated towards each apex, ratio of the length of each segment from base to apex: 0.41, 0.17, 0.83, 0.56, 0.48, 0.45, 0.46, 0.44, 0.41, 0.40, 0.48.

Pronotum subquadrate, 1.3 times as wide as long, widest slightly before the middle; apex almost straight, rimmed, the rim tapering laterad and scattered with microscopic punctures; base more noticeably bisinuous, less boldly rimmed, the rim scattered with minute punctures; sides steeply declined to lateral margins, separated from ventral sides by fine ridges, which are not dentate as in *S. azuripes* and visible from above; front angles rounded, hind angles subrectangular (rather acute in *S. azuripes*) in dorsal view; disc similar in surface structure to that in *S. azuripes*. Scutellum nearly equilateral triangular with feebly rounded sides (elongated bilateral triangular in *S. azuripes*), weakly convex, scattered with microscopic punctures in lateral parts.

Elytra a little more elongate, about twice as long as wide, widest slightly behind the middle, 3.8 times the length and 1.3 times the width of pronotum; dorsum less strongly tri-undulate, more strongly depressed among the area between scutellar striae, highest at basal 1/3; disc punctato-striate, the punctures in striae larger at each bottom, smaller and mostly oblong on upper surface (larger and somewhat rhombic in *S. azuripes*); humeri less strongly swollen laterad; apices more noticeably produced and slightly dehiscent.

Male anal sternite weakly depressed in medio-apical part (clearly, subelliptically depressed in *S. azuripes*), truncate at apex, with lateral corners feebly protrudent. Legs medium-sized; male protibia obliquely gouged in anterior half of ventral face (almost simple in *S. azuripes*); male mesotibia weakly curved interiad (almost the same as in *S. azuripes*); male metatibia gently thickened apicad (weakly twisted in middle, with interior face slightly gouged in *S. azuripes*); ratios of the lengths of pro- and mesotarsi

(metatarsi lost in the holotype): 0.20, 0.15, 0.13, 0.14, 0.67; 1.58, 0.63, 0.51, 0.34, 0.89; —, —, —, —.

Male genitalia about 2.10 mm in length and 0.34 mm in width, weakly curved in lateral view; basal piece elongated ovate, with anterior part raised and weakly prolonged; fused lateral lobes 0.95 mm in length, very slender, with acute apices.

Body length: 12.5–15.7 mm.

Holotype: ♂, Ban Van Eua, Vientiane, Laos, 29–IV–1966, J. RONDON leg. (MNHNP). Paratypes: 2 exs., Ban Van Eua, Vientiane, 15–VI–1967, J. RONDON leg.; 1 ex., Sayabouri, Laos, 5–V–1966, J. RONDON leg.; 2 exs., Vientiane, Laos, VII–1963, A. BAUDON leg.; 1 ex., Plaine des Jarres, Laos, VII–1964, A. BAUDON leg.

Strongylium prateetlao sp. nov.

(Fig. 6)

Brownish black, legs lighter in colour, head dark greenish blue, scutellum and elytra dark coppery or bronzy, hairs on ventral surface brownish yellow, head weakly metallicly shining, pronotum almost dull, scutellum and elytra sericeously shining, ventral sides somewhat alutaceous and with weak dark greenish reflection. Body elongate, convex longitudinally.

Female. Head subdecagonal, weakly covered with isodiametric microsculpture, rather closely, finely punctate, the punctures becoming larger and coarser posteriad; clypeus semicircular, gradually inclined forwards, steeply so in apical part, truncate in front, with a transverse impression before fronto-clypeal border, which is evenly curved and finely grooved; genae oblique, gently raised outwards, with rounded outer margins; frons rather boldly T-shaped, steeply inclined behind fronto-clypeal border, vaguely impressed and almost impunctate in medio-posterior part, diatone 0.4 times the width of transverse diameter of an eye. Eyes medium-sized, somewhat transversely comma-shaped in dorsal view, weakly convex laterad, gently, roundly inlaid into head. Antennae rather slender, segments IV to VIII gently thickened towards each apex, ratio of the length of each segment from base to apex: 0.34, 0.13, 0.72, 0.58, 0.49, 0.47, 0.42, 0.37, —, —, —.

Pronotum trapezoidal in dorsal view, 1.2 times as wide as long, widest at the middle and base, feebly sinuous before base; apex sublinear, finely rimmed, the rim bordered in lateral parts; base ridged, very slightly bisinuous; sides steeply inclined, enveloping ventral parts, scarcely bordered; front angles rounded, hind angles subrectangular in dorsal view; disc gently convex, feebly covered with isodiametric microsculpture, closely punctate, the punctures often fused with one another, weakly impressed behind the middle on each side, rather strongly depressed close to base in lateral parts, with a shallow longitudinal impression. Scutellum triangular, gently convex, weakly covered with isodiametric microsculpture, sparsely scattered with microscopic punctures in medial part.

Elytra elongated fusiform, 2.39 times as long as wide, 4.0 times the length and

1.4 times the width of pronotum, widest at apical $3/8$; dorsum longitudinally convex, very weakly depressed in basal $1/3$; disc punctato-striate, the punctures small, closely set, with upper surfaces rather transverse, 1st and 2nd grooves, and 3rd and 4th ones united in basal parts, 5th reaching base; intervals gently convex, very weakly covered with isodiametric microsculpture, sparsely scattered with microscopic punctures, often transversely, finely aciculate; humeri gently swollen; apices rounded.

Legs slender; meso- and metatibiae feebly curved in middle; ratios of the lengths of pro-, meso- and metatarsomeres: 0.18, 0.10, 0.11, 0.13, 0.59; 1.31, 0.52, 0.44, 0.29, 1.01; 2.02, 0.80, 0.52, —.

Body length: 10.9 mm.

Holotype: ♀, Vientiane, Laos, VII-1963, A. BAUDON leg. (MNHNP).

Notes. This new species somewhat resembles *Strongylium tsurui* MASUMOTO, 2003, from North Thailand in general features, but can easily be distinguished from the latter by the pronotum feebly covered with isodiametric microsculpture, and closely punctate with a shallow longitudinal impression, the scutellum gently convex (transversely depressed in *S. tsurui*) and sparsely scattered with microscopic punctures, and the elytra with the 6th striae not united with the 5th near the base.

Strongylium champassakense sp. nov.

(Figs. 7, 19–20)

Black, head, pronotum, scutellum and basal and lateral parts of elytra dark greenish tinge, major parts of elytra dark coppery, head and pronotum weakly, sericeously shining, elytra moderately so, ventral surface mostly alutaceous; each surface almost glabrous. Body elongated fusiform, longitudinally convex.

Head subdecagonal, weakly covered with isodiametric microsculpture, rather closely, irregularly punctate; clypeus semicircular, gently bent in anterior part, fronto-clypeal border rather strongly impressed; genae obliquely, moderately raised outwards, with outer margins rounded; frons noticeably widely T-shaped, gently inclined anteriorly, very weakly impressed medially, diameter about $2/3$ times the width of transverse diameter of an eye. Eyes medium-sized, subreniform, convex laterad, obliquely, roundly inlaid into head. Antennae subclavate, reaching basal $1/5$ of elytra, six apical segments flattened, ratio of the length of each segment from base to apex: 0.28, 0.21, 0.36, 0.28, 0.24, 0.22, 0.16, 0.17, 0.15, 0.14, 0.21.

Pronotum 1.33 times as wide as long, widest at the middle; apex feebly produced anteriorly, boldly rimmed, and tapering laterad; base bordered and ridged, slightly sinuous on each side; front angles obtuse with rounded corners, hind angles subrectangular; sides rather steeply declined to lateral margins, which are bordered from ventral side by fine ridges, bluntly toothed at the middle, and noticeably sinuous in areas between the teeth and bases; disc moderately convex, covered with isodiametric microsculpture, rather closely, irregularly punctate, very weakly impressed at the middle on each side. Scutellum triangular, gently ridged medially, very weakly covered with

isodiametric microsculpture, sparsely scattered with minute punctures in lateral parts.

Elytra about 2.15 times as long as wide, 5.00 times the length and 1.68 times the width of pronotum, widest at apical 3/8; dorsum moderately convex, highest at basal 3/8, weakly depressed at basal 1/6; disc punctato-striate, the punctures small and closely set, 1st and 2nd striae, and 3rd and 5th connected with each other near bases, 5th reaching base; intervals gently convex, covered with isodiametric microsculpture, sparsely scattered with microscopic punctures, finely, rather transversely aciculate; humeri moderately swollen; apices weakly roundly produced.

Ratio of the length of protarsomeres (meso- and metatarsi lost in the type): 0.12, 0.08, 0.09, 0.08, 0.34; —, —, —, —, —; —, —, —, —.

Male genitalia somewhat elongated ovate and prolonged apicad, 1.10 mm in length, 0.23 mm in width, moderately curved in middle in lateral view; fused lateral lobes 0.62 mm in length, with apices acutely pointed.

Body length: 6.5–6.8 mm.

Holotype: ♂, 2 km S. of Ban Nong Luang (bank of Touay-Guai stream, 15°4'N, 106°13'E, 800 m alt., No. 28), Dong Hua Xao NBCA, Champassak Prov., Laos, 1~5-IV-1988, O. MERKL & G. CSORBA leg. (HNHMB). Paratypes: 3 exs., same data as for the holotype.

Notes. This is an isolated species, with which no known *Strongylium* can be compared.

***Strongylium yoshitomi* sp. nov.**

(Fig. 8)

Head and ventral side brownish black, pronotum, scutellum, profemora and protibiae, apical parts of mesofemora and mesotibiae, apical parts of metafemora and metatibiae, and claws yellowish brown, elytra yellow with interior parts (from base to apices) and lateral parts (from base to posterior parts) yellow, basal part of each femur pale yellow; head, pronotum and scutellum weakly, sericeously shining, elytra rather strongly, vitreously shining, ventral surface moderately, partly alutaceously shining; each surface almost glabrous. Body elongate, gently convex longitudinally.

Female. Head subdecagonal, feebly covered with isodiametric microsculpture; clypeus semicircular, flattened in basal part, weakly bent ventrad and truncate in front, fronto-clypeal border finely sulcate; genae obliquely raised outwards, scattered with microscopic punctures, with outer margins rounded; frons moderately inclined anteriorly, widely grooved medially along medial line, irregularly punctate, the punctures often fused with one another and rugose, diameter about 2/3 times the width of transverse diameter of an eye. Eyes subreniform, strongly convex laterad, rather obliquely inlaid into head. Antennae subfiliform, ratio of the length of basal to 9th segments: 0.26, 0.11, 0.56, 0.48, 0.38, 0.34, 0.35, 0.36, 0.35, —, —.

Pronotum transversely subhexagonal, slightly wider than long (10:9); apex straight, rimmed, the rim sparsely scattered with microscopic punctures and tapering

laterad; base bordered and ridged, the ridge sparsely scattered with microscopic punctures, sinuous in lateral parts; sides steeply inclined laterad and enveloping ventral sides; lateral margins in dorsal view roundly produced, widest at the middle, sinuous before base; front angle rounded, hind angle subrectangular with rounded corner in dorsal view; disc moderately convex, weakly depressed along median line in antero-medial part and before base, weakly impressed at the middle and close to base on each side, weakly covered with isodiametric microsculpture, rather closely, irregularly punctate, the punctures often fused with one another, each with a minute hair at the centre. Scutellum sublinguiform, gently convex, covered with isodiametric microsculpture, weakly punctate and aciculate.

Elytra elongated fusiform, 2.78 times as long as wide, 4.54 times the length and 1.45 times the width of pronotum, widest at apical 1/3; dorsum moderately convex, weakly bi-undulate in basal part, highest at basal 3/8; disc punctato-striate, the punctures in striae strong and rather foveolate; intervals convex, weakly covered with isodiametric microsculpture, very sparsely scattered with minute punctures; humeri longitudinally swollen; apices dihiscent.

Legs slender; ratios of the lengths of pro- and metatarsomeres (mesotarsomeres lost in the type): 0.14, 0.11, 0.12, 0.10, 0.63; —, —, —, —, —; 0.42, 0.19, 0.13, 0.31.

Body length: 8.2 mm.

Holotype: ♂, "Phu Pan (Mt.), Houaphan Prov., Laos, 28-IV~6-V-2002, H. YOSHITOMI leg.", K. ANDO collection (FAEU).

Notes. This new species somewhat resembles *Strongylium kohanemum* MASUMOTO, 1998, originally described from West Thailand, but can be distinguished from the latter by the slenderer body with the scutellum noticeably convex, covered with isodiametric microsculpture, punctate, and aciculate, and the elytra noticeably undulate, and more strongly punctato-striate.

Strongylium houaphanense sp. nov.

(Figs. 9, 21–22)

Piceous, head, pronotum, scutellum and elytra with dark greenish tinge and strongly, metallicly shining, ventral surface bluish green and moderately shining; each surface almost glabrous. Body elongated fusiform, strongly convex longitudinally.

Head subdecagonal, almost smooth, rather closely punctate; clypeus a little transverse, flattened in basal part, inclined apicad, and rather strongly bent ventrad in front, particularly noticeably so on each side, fronto-clypeal border widely U-shaped and clearly impressed; genae oblique, raised outwards, with rounded outer margins; frons somewhat T-shaped, steeply inclined anteriad, depressed in interocular space, rugoso-punctate, diatone about 1/3 the width of transverse diameter of an eye. Eyes rather large, subreniform, strongly convex laterad, obliquely, roundly inlaid into head. Antennae subfiliform, reaching basal 1/3 of elytra, ratio of the length of each segment from

base to apex: 0.29, 0.12, 0.71, 0.69, 0.53, 0.46, 0.45, 0.39, 0.37, 0.31, 0.41.

Pronotum somewhat barrel-shaped, about 1.3 times as long as wide, widest at basal 1/3, weakly sinuous before base; apex straight, bordered and rimmed, the rim becoming finer laterad, sparsely scattered with fine punctures; base bordered, and ridged, the ridge gently sinuous in lateral parts, sparsely scattered with fine punctures; sides steeply declined to lateral margins, which are finely bordered from ventral sides; front angles rounded, hind angles rather acutely protrudent in dorsal view; disc moderately convex, very smooth, sparsely, irregularly punctate, longitudinally impressed along median line in anterior and medio-posterior parts, also impressed at the middle and basal 1/5 on each side. Scutellum equilateral triangular, convex in middle, almost smooth, sparsely, irregularly scattered with microscopic punctures.

Elytra elongate, 2.4 times as long as wide, almost 5 times the length and 1.6 times the width of pronotum, widest at apical 3/8, slightly narrowed around basal 1/3; dorsum strongly convex, highest at basal 3/8, weakly depressed between scutellar striae; disc punctato-striate, the punctures in striae fine, 1st and 2nd striae connected near base, 3rd to 5th reaching close to base; intervals gently convex, smooth, very sparsely scattered with microscopic punctures, very weakly, transversely aciculate; humeri gently, longitudinally swollen; apices slightly dehiscent.

Male anal sternite weakly emarginate at apex, semicircularly depressed, the depression sparsely pubescent. Legs slender; protibiae rather simple in shape; mesotibiae slightly curved dorsad; metatibiae also slightly curved dorsad; ratios of the lengths of pro-, meso- and metatarsomeres: 0.21, 0.15, 0.15, 0.15, 0.59; 1.26, 0.47, 0.44, 0.23, 0.96; 1.21, 0.39, 0.27, 1.04.

Male genitalia about 2.04 mm in length, 0.37 mm in width, not so distinctly curved in lateral view; basal piece subfusiform; fused lateral lobes 0.94 mm in length, with weakly prolonged acute apices.

Body length: 10.7 mm.

Holotype: ♂, Fall of Saleui, Xam Neua, ca. 1,400 m alt., Houa Phan Prov., Laos, 5-V-2002, N. OHBAYASHI leg., K. ANDO collection (FAEU).

Notes. This new species resembles *Strongylium rufabdominale* MASUMOTO, 1998, from North Thailand, but can be distinguished from the latter by the body slenderer with the dorsal surface not covered with isodiametric microsculpture but more metallically shining, the pronotum less strongly impressed medially.

***Strongylium masatakaiellum* sp. nov.**

(Figs. 10, 23–24)

Head, pronotum, scutellum, major parts of ventral side, profemora, basal and apical parts of meso- and metafemora, 1st antennal segments, apical half of each of 7th to apical segments, and mouth parts brownish black, major parts of elytra, the remaining parts of antennae, gula, lateral parts of abdomen, the remaining parts of femora, tibiae and tarsi, etc., dark reddish brown; each surface noticeably covered with pale decum-

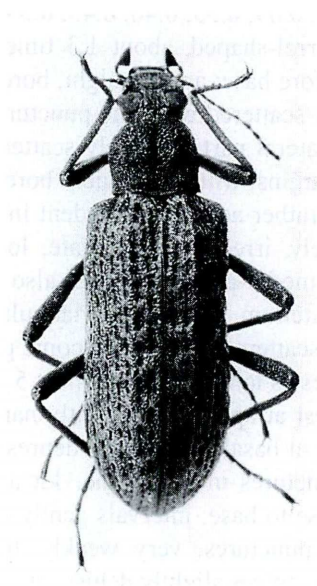


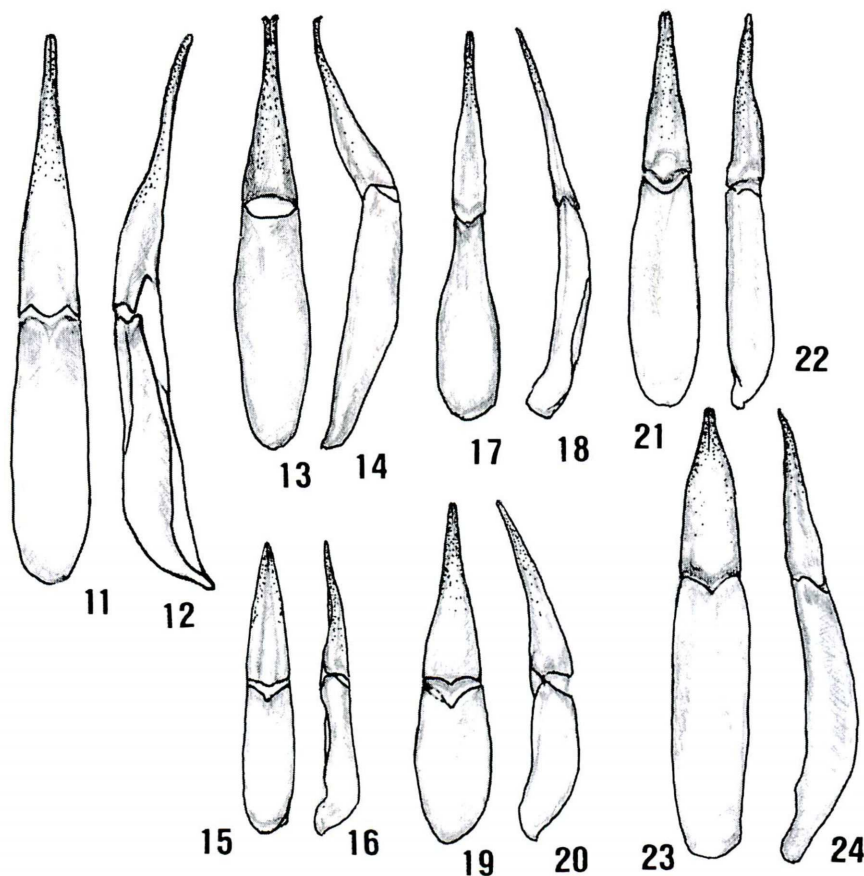
Fig. 10. Habitus of *Strongylium masatakeiellum* sp. nov., holotype, ♂.

bent hairs. Body oblong-ovate; strongly convex longitudinally.

Head nearly rounded, rugose; clypeus semicircular, weakly flattened in basal part, gently inclined anteriad, weakly bent ventrad in front, fronto-clypeal border moderately curved and impressed; genae obliquely raised, with obtuse outer margins; frons somewhat widely T-shaped, gently inclined anteriad, with a vague impression at the middle, diameter about $2/3$ times the width of transverse diameter of an eye; areas behind eyes obliquely depressed. Eyes medium-sized, rather transverse, convex laterad, gently obliquely inlaid into head. Antennae not so slender, reaching humeri of elytra, ratio of the length of each segment from base to apex: 0.28, 0.14, 0.52, 0.40, 0.42, 0.41, 0.39, 0.35; 0.33, 0.32, 0.35.

Pronotum 1.15 times as wide as long, widest at apical $1/3$; apex weakly produced, ridged; base bordered, ridged, bisinuous, weakly emarginate opposite to scutellum; front angles rounded, hind angles subrectangular in dorsal view; sides steeply inclined laterad, without defined borders from ventral sides; disc strongly convex, noticeably swollen at the middle on each side, coarsely rugose, depressed behind the swellings. Scutellum sublinguiform, finely aciculate in basal part, strongly aciculate in medial and apical parts.

Elytra subcylindrical, 2.14 times as long as wide, 3.91 times the length and 1.62 times the width of pronotum, slightly narrowed at basal $1/3$; dorsum rather strongly convex, highest at the middle, depressed along scutellar striae; disc grooved, the grooves interrupted; intervals covered with microscopic granules medially, and also with isodiametric microsculpture laterally, often transversely connected with one an-



Figs. 11–24. Male genitalia of *Strongylium* spp. — 11–12, *S. ohbayashii* sp. nov., 11, dorsal view, 12, lateral view; 13–14, *S. sayabourienne* sp. nov., 13, dorsal view, 14, lateral view; 15–16, *S. paksense* sp. nov., 15, dorsal view, 16, lateral view; 17–18, *S. rondonianum* sp. nov., 17, dorsal view, 18, lateral view; 19–20, *S. champassakense* sp. nov., 19, dorsal view, 20, lateral view; 21–22, *S. houaphanense* sp. nov., 21, dorsal view, 22, lateral view; 23–24, *S. masatakaiellum* sp. nov., 23, dorsal view, 24, lateral view.

other, 3rd intervals distinctly, 5th and 7th indistinctly ridged; base gently produced on each side; humeri convex; apices weakly, roundly produced.

Male anal sternite without particular modification. Legs rather slender; ratios of the lengths of pro-, meso- and metatarsomeres: 0.24, 0.19, 0.18, 0.22, 0.82; 0.80, 0.43, 0.39, 0.33, 1.23; 0.98, 0.52, 0.37, 1.14.

Male genitalia subfusiform, 2.50 mm in length, 0.39 mm in width, weakly curved in lateral view; fused lateral lobes 0.89 mm in length, with apices slightly prolonged.

Body length: 8.5 mm.

Holotype: ♂, "Phu Pan (Mt.), Houaphan Prov., Laos, 28-IV~6-V-2002, H.

YOSHITOMI leg.”, K. ANDO collection (FAEU). Paratypes: 1 ex., Phu Pan, 1,750 m alt., Xamneua, Laos, 16–21–VI–2003, M. SATŌ leg.; 1 ex., Mt. Phu Pan, Ban Saleui, Xam Neua, Houaphan Prov., 27–IV–2002, N. OHBAYASHI leg., K. ANDO collection.

Notes. This is an isolated species, whose body is distinctly covered with decumbent hairs.

要 約

益本仁雄：アジア産ナガキマワリ族(*Strongyliini*)の研究. XIV. ラオス産ナガキマワリ属(*Strongylium*)について (その1). —— アジア産ナガキマワリ族(*Strongyliini*)研究の第14回として, ラオス産のナガキマワリ属(*Strongylium*)を取り上げた. 10種の新種を記載し, それぞれ *Strongylium ohbayashii* sp. nov., *S. claudianum* sp. nov., *S. sayabourienne* sp. nov., *S. paksense* sp. nov., *S. rondonianum* sp. nov., *S. prateetlao* sp. nov., *S. champassakense* sp. nov., *S. yoshitomi* sp. nov., *S. houaphanense* sp. nov. および *S. masatakiellum* sp. nov. と命名した.

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